

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) ~~Method~~ A method for ~~transparent access application layer~~ authentication of subscribers connected to ~~the~~ an authenticating network domain by a ~~2G or 2.5G~~ General Packet Radio Service GPRS core network or a ~~3G~~ an Universal Mobile Telecommunication System UMTS network, ~~characterised by comprising:~~

receiving a context creation request from a subscriber;

assigning an IP address to the context;

receiving a check-in ID from the subscriber;

receiving a private identification PrivID from the subscriber, the PrivID is being correlated with a pre-recorded ID of the subscriber in a subscriber database; and

authenticating the subscriber by comparing the check-in ID with the pre-recorded ID, and

indicating authentication when the check-in ID matches the pre-recorded ID.

~~using data which are assembled by the network layer during establishment of a PDP context in GPRS networks.~~

2. (Currently Amended) ~~Method~~ The method according to claim 1, ~~wherein the comprising~~ the step that ~~during PDP context establishment the Serving GPRS Support Node (SSGN) is~~ of authenticating the subscriber ~~using the~~ includes an A3/A8 algorithm based on ~~the~~ an end devices SIM card.

3. (Currently Amended) ~~Method according to any preceding claim, comprising~~ The method according to claim 1, further includescomprising:

~~the step that ausing a Gateway GPRS Support Node (1) receives a context creation request and queries to receive the context creation request;~~
~~querying the context request to a Radius server;~~
~~using the Radius server to receive the check-in ID; and a registration server (2) to get an IP address assigned for the particular PDP context, and within the context the registration server 2 receives the MSISDN and/or the IMSI of the subscriber and stores for each PDP context a pair of~~
~~storing the IP address and the check-in IDIMSI/MSISDN in a session database (3).~~

4. (Currently Amended) ~~Method according to any preceding claim, comprising~~ The method according to claim 1, further includescomprising:

~~using the step that a proxy server to compare the check-in ID with the pre-recorded ID, wherein the subscriber database is an application domain database(5) is provided which checks IMSI/MSISDN from a radiu's server (2) database (3) and IMSI/MSISDN from application domain database (4) for match.~~

5. (Currently Amended) ~~Method according to any preceding claim, comprising the step that if the IMSI/MSISDN pairs are matching,~~ The method according to claim 1, further comprising:

using a the radius Radius server (5) checks the subscribers to compare a subscriber's IP address in the an IP network layer for match with the assigned IP address for a match assigned by the Radius server (3).

6. (Currently Amended) The method according to claim 1, further comprising: Method according to any preceding claim, comprising the step that

using a the proxy server (5) parses the to parse an application layer for IP addresses given in the headers of registration messages and checks for match to compare with the assigned IP address for a match, wherein the IP address given in the headers which was already checked for a match with the assigned IP address assigned by the radius server (2).

7. (Currently Amended) The method~~Method~~ according to any preceding claim 1, comprising the step that steps of, in all subsequent messages arriving at the proxy server (5), it checks~~checks~~ for a match of IP address in the IP packet overhead field for source address with that in the application layer protocol header fields and verifies~~verifying~~ the matching pairs against the IP address assigned by the Radius server (2).

8. (Currently Amended) The method~~Method~~ according to any preceding claim 1, that wherein a routing module (7) is provided which is the a standard entry point for all messages and

wherein the routing module (7) decides by evaluation of the PrivID which network node will handle the message.

9. (Currently Amended) ~~System~~A system of units in a mobile telecommunication network, comprising:characterised that
at least a first authentication unit (2) is connected to a session database via a first data line;
-to-a second unit (5; 6) connected to the session database via a second data line; wherein
which
the second unit assembles data according to the method of claim 1.

10. (Currently Amended) ~~System~~The system of units according to claim 9, wherein the first authentication unit comprises a registration server-(2).

11. (Cancelled).

12. (Currently Amended) The system of units ~~System~~ according to any of claims 9 to 11, wherein the second unit comprises a proxy server-(5).

13. (Currently Amended) The system of units ~~System~~ according to any of claims 9 to 12, wherein the second unit comprises a proxy server connected to a Proxy Call State Control Function (6) via a routing module.

14. (Currently Amended) The system of units~~System~~ according to ~~any of claims 9 to 13~~ claim 13, wherein the second unit (5; 6) is connected to a subscriber database (4).

15. (Currently Amended) The system of units~~System~~ according to ~~any of claims 9 to 14~~ claim 13, wherein a routing module selects messages from one of the proxy server and the Proxy Call State Control Function by evaluating the PrivID(7) is provided ~~decides by evaluation of PrivID which network node will handle the message~~.

16. (New) The method of claim 1, wherein the check-in ID is one of an Mobile Station ISDN Number MSISDN and an International Mobile Subscriber Identity IMSI received from the subscriber, and the pre-recorded ID is one of the subscriber's MSISDN and IMSI pre-recorded in a subscriber database.

17. (New) The system according to claim 12, wherein the proxy server (5) is connected to a subscriber database (4).

18. (New) A method for transparent access authentication of subscribers connected to an authenticating network domain by a General Packet Radio Service GPRS core network or an Universal Mobile Telecommunication System UMTS network, using data assembled by a network layer during establishment of a PDP context in GPRS networks, comprising:

receiving, at a Gateway GPRS Support Node, a context creation request from a subscriber, the Gateway GPRS Support Node,

in response the receipt of the context creation request, querying a registration server to get an IP address assigned for the context;

within the context, receiving at the registration server, a check-in ID from the subscriber; storing, for each PDP context, a pair of an IP address and the check-in ID in a session database;

checking, in a proxy server, the check-in ID from a registration server session database and a pre-recorded ID stored in an application domain database, for a match,

if the check-in ID matches the pre-recorded ID, checking, in the proxy server, a subscribers IP address assigned in the IP network layer for a match with the IP address assigned by the registration server, and

using a proxy server to parse an application layer for IP addresses given in headers of registration messages and to compare the IP addresses with the network layer IP address for a match, wherein the IP address given in the headers was already checked for a match with the IP address assigned by the registration server.